

## STS Grand Challenges Workshop

August 24-26, 2024  
 Sheraton Pentagon City Hotel

Time	Event/Activity	Location
<b>August 23, 2024</b>		
6:00pm – 9:00pm	Evening Reception and Registration	Cavalier Ballroom
<b>August 24, 2024</b>		
7:30am – 8:30am	Breakfast	Cavalier Ballroom
8:30am – 8:45am	Welcome and Workshop Charge <ul style="list-style-type: none"> <li>- Laura Greene (Florida State University National High Magnetic Field Laboratory)</li> <li>- Alan Tennant (University of Tennessee, Knoxville)</li> <li>- Norm Wagner (University of Delaware)</li> <li>- Soichi Wakatsuki (Stanford University)</li> <li>- Jens Dilling (Oak Ridge National Laboratory)</li> </ul>	Commonwealth Ballroom (South)
8:45am – 9:15am	Vision for a Second Target Station <ul style="list-style-type: none"> <li>- Alan Tennant (University of Tennessee, Knoxville)</li> </ul>	Commonwealth Ballroom (South)
9:15am – 9:45am	Quantum Materials <ul style="list-style-type: none"> <li>- Satoru Nakatsuji (University of Tokyo)</li> </ul>	Commonwealth Ballroom (South)
9:45am – 10:15am	Soft Matter & Polymers <ul style="list-style-type: none"> <li>- Norm Wagner (University of Delaware)</li> </ul>	Commonwealth Ballroom (South)
10:15am – 10:30am	Break	
10:30am – 11:00am	Materials & Engineering <ul style="list-style-type: none"> <li>- Suresh Babu (University of Tennessee, Knoxville)</li> </ul>	Commonwealth Ballroom (South)
11:00am – 11:30am	Chemistry & Environmental Science <ul style="list-style-type: none"> <li>- Roberto Car (Princeton University)</li> </ul>	Commonwealth Ballroom (South)
11:30am – 12:00pm	Biological Materials, Systems & Human Health <ul style="list-style-type: none"> <li>- Kalina Hristova (Johns Hopkins University)</li> </ul>	Commonwealth Ballroom (South)

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Time	Event/Activity	Location
12:00pm – 12:30pm	Working Lunch	Commonwealth Ballroom (South)
<b>Breakout Sessions</b>		
12:30pm – 2:30pm	Short presentations and discussions (group)	
2:30pm – 2:45pm	Break	
2:45pm – 4:45pm	Discussions of grand science challenges and identify priority science opportunities (group)	
4:45pm – 5:15pm	Break	
5:15pm – 6:00pm	Short reports from breakout session chairs (all)	
6:00pm – 6:30pm	Break	
6:30pm – 8:00pm	Dinner provided (all)	Commonwealth Ballroom (South)
6:30pm – 8:00pm	Breakout session chairs coordination meeting (make dinner plate and walk over to breakout room)	North 1
<b>Sunday, August 25, 2024</b>		
7:30am – 8:30am	Breakfast	Commonwealth Ballroom (South)
<b>Plenary Presentation</b>		
8:30am – 9:00am	Past Lessons and Future Possibilities - Roger Pynn (Indiana University, Bloomington)	Commonwealth Ballroom (South)
<b>Breakout Sessions</b>		
9:00am – 10:20am	New breakout discussions: Water, AI, Interfaces & Surfaces, Sustainability, Facilities of the Future, Extreme Conditions (groups)	
10:20am – 12:00pm	Discussions on meeting scientific needs and identify priority science capabilities (groups)	

Time	Event/Activity	Location
<b>Plenary Presentation</b>		
12:00pm – 12:30pm	Human Level AI by 2030? - Jared Kaplan (ANTHROPIC)	Commonwealth Ballroom (South)
12:30pm – 1:00pm	Working Lunch	Commonwealth Ballroom (South)
<b>Breakout Sessions</b>		
1:00pm – 4:15pm	Writing Session 1: Grand science challenges and required experimental and scientific tools (groups) + ad hoc working group on crosscuts	
4:15pm – 5:15pm	Short reports and open discussion (all)	
5:15pm – 6:00pm	Summary: Vision and next steps (all)	
6:00pm – 7:00pm	Working dinner provided (all) – CASH BAR (cash or card accepted, ATM located by restaurant)	
<b>Monday, August 26, 2024</b>		
7:30am – 8:30am	Breakfast	Commonwealth Ballroom (South)
<b>Breakout Sessions</b>		
8:30am – 12:00pm	Writing Session 2: Grand science challenges and required experimental and scientific tools (groups)	

## Breakout Session, Chairs, and Co-chairs

Quantum Materials: Collin Broholm (chair, Johns Hopkins University), Mingda Li (co-chair, MIT)

Soft Matter & Polymers: Nitash Balsara (chair, UC Berkeley), Nairiti Sinha (co-chair, Pennsylvania State University)

Materials & Engineering: Steve Zinkle (chair, University of Tennessee, Knoxville), Janelle Wharry (co-chair, University of Illinois)

Chemistry & Environmental Science: Jacob Jones (chair, NC State University), Craig Brown (co-chair, NIST), Karena Chapman (co-chair, Stony Brook), Katharine Page (co-chair, UTK), Angela Pitenis (co-chair, UC Santa Barbara)

Biological Materials, Systems & Human Health: Eddie Snell (chair, Hauptman-Woodward Medical Research Institute), Jonathan Nickels (co-chair, University of Cincinnati)



# AGENDA

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